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Beyond Scaling Up: Pathways to Universal Access to Health Services

Gerald Bloom and Peroline Ainsworth

Beyond Scaling Up

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There is a growing impatience at national and international levels with the persistence of high burdens of ill health for which effective interventions are available. This has led to big political and financial commitments and the creation of large new international organisations with the aim of increasing access to health services. The impact of these initiatives has not been consistently commensurate with these developments. It has become clear that the translation of these commitments into major improvements in the performance of health systems is not a simple task. One-size-fits-all approaches have had limited success in complex and rapidly changing contexts. Local innovations often do not spread quickly enough to have a major impact. Successful strategies need to combine large scale interventions and local adaptation and innovation. This paper explores alternative approaches for managing large scale health system changes in low and middle-income countries.

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Table of Contents

1. Introduction

Health has risen dramatically up the global political agenda in recent years. Where previously international statements on this topic had been made mostly by scientific experts or officials of specialised international agencies, commitments on global health are now included in the communiques of meetings of presidents and prime ministers. There has been a similar rise in the political importance of health in many low and middle-income countries.[1]

The translation of political statements into significant progress towards universal access to health-related goods and services in low and middle-income countries is proving to be a big challenge. The flow of international finance earmarked for health has increased substantially, several global initiatives have been launched, and large new international organisations (such as the Global Fund to Fight AIDS, Tuberculosis and Malaria) have been established. However, the available evidence suggests that, for many people, the change in access to safe and effective health services has not been commensurate with these international developments.

The aim of this paper is to contribute to understandings of different pathways for improving the performance of a health system. It uses the word 'system' to refer to a social, ecological, technical, and institutional arrangement for achieving agreed social purposes. It takes as its starting point a normative position that gives priority to meeting the most important health-related needs of the poor. Many discussions of health systems seem to imply stable arrangements within which efforts to scale up activities have relatively predictable outcomes. However, there is an increasing recognition of the complexity of the relationships within health sectors and the degree to which the impact of a particular intervention is not necessarily linear (Paina and Peters 2010). This paper discusses alternative strategies for building effective health systems in terms of their likely impact on both the long-term aim of moving towards universal access to 'important' health-related goods and services and the more immediate goal of reducing the burden of preventable sickness and premature death. It refers to 'pathways' to signal that health systems can develop in different ways and that, due to the path-dependent nature of health systems, the choice of one option is likely to preclude others. It also draws attention to the need to recognise potential pathways that may not be immediately obvious to decision-makers. This is especially important when there is a growing political interest in health, funding levels are rising, and the creation of new organisations and institutional arrangements will influence the structure of health systems for many years to come.

[1] One of the most dramatic political developments evidencing this has been the Chinese government's launch of a major health reform involving substantial commitments of public funds.

Responses to the need to expand access to health-related goods and services have been based, perhaps necessarily, on partial understandings of the task, and outcomes have been variable both in terms of improved health systems and in terms of unintended consequences (such as the rapid spread of unorganised health markets, the emergence of drug resistant organisms and, in some places, a widening gap in access to health services between social groups). This experience points to the need for a better understanding of the nature of complex health systems, what they are delivering and for whom, and the factors that influence efforts to change their performance.

Other sectors are also gaining experience with the implementation of major interventions in contexts of complexity and rapid change. A recent book by Leach, Scoones, and Stirling (2010) discusses global efforts to support sustainable development. They argue that it is impossible fully to understand and model the complex interactions between the environment, people, organisations, and social institutions that constitute dynamic systems. They suggest that large organisations and powerful experts tend to 'frame' a challenge in ways that reduce the need to recognise complexity and uncertainty, thereby enabling them to define and manage large-scale responses. Leach *et al*. use the concept of 'narratives' to explore the alternative understandings that actors in a policy and research network construct to enable them to work together coherently. The authors acknowledge the value of these simplifying assumptions in making possible interventions that mobilise a lot of money and organise many people to work according to agreed rules and norms. However, they warn of the danger of prematurely closing down the consideration of alternative pathways that reflect alternative framings of systems and goals for system change. They suggest that this could preclude the possibility of alternative ways forward and increase the risk of unintended consequences.

This paper explores different narratives for understanding the challenge of managing major health system change in low and middle-income countries. Section 2 presents the background to the discussions that follow. Sections 3 and 4 explore narratives of scaling up as the management of organisational change and the emergence and spread of innovations, respectively. Some narratives covered in both sections favour blue-print approaches to change, whilst others emphasise bottom-up approaches. The former focus on rapid implementation of large interventions, but they neglect context, local innovations, and the risk of serious unintended consequences. The latter respond to local needs and contexts, but can draw excessive attention to small experiments. Section 5 concludes with a discussion of alternative pathways for system-wide change.

2. Spreading access to the benefits of medical science

The strong political interest in health reflects the recognition that there are big differences in life expectancy and burden of disease between the advanced market economies and many low-income countries and between the better off and the poor in the latter. This arises from the impact of poverty on health (WHO 2008a) and the failure of many people to benefit from existing medical technologies (Conway and Waage 2010; Frost and Reich 2008).

A large body of work has documented the cost and effectiveness of nearly two hundred health interventions and the possibility that many lives would be saved if more people had access to them (Jamison *et al*. 2006; Jha *et al*. 2002; Victora *et al*. 2004). For example, the Commission on Macroeconomics and Health reported to the WHO that the additional cost of providing a high level of access to cost-effective health services would be between US$40-52 billion a year by 2015 and that by 2007 the donor contribution would need to reach around US$27 billion a year (WHO 2001 and 2002). This created clear targets for bridging the gap between the need for and access to health-related goods and services.

Government financing of health in all developing countries rose substantially between 1995 and 2006 (Lu *et al*. 2010). Donor flows to the health services of low and middle-income countries almost doubled between 1990 and 2001 and doubled again between 2001 and 2007, reaching US$21.8 billion in 2007 (Ravishankar *et al*. 2009). The sources of these flows in 2007 included UN agencies, the World Bank and regional development banks (21.2 per cent), bilateral aid agencies (34.0 per cent), the Global Fund and GAVI (12.5 per cent), and a wide variety of NGOs and foundations. Almost a third of these resources were earmarked for HIV/AIDS, tuberculosis, and malaria.

The quadrupling of financial flows for international health has been accompanied by the creation of international organisations to manage the increased funds. Ravishankar *et al*. (2009) document a rise in the share of resources flowing through NGOs from 13.1 per cent in 1990 to 24.9 per cent in 2006 and a rise in the importance of private sources of funding from 19.0 per cent in 1998 to 26.7 per cent in 2007. These greatly expanded NGOs and new charitable foundations, such as the Bill and Melinda Gates Foundation, have had a growing influence on global discussions about international health. Large transnational companies have responded to these changes by establishing and expanding divisions within their organisation and creating a variety of partnerships with international agencies. The development of these large public and private organisations in complex partnerships have led to calls for better management of aid flows (Lane and Glassman 2007) and new forms of global health governance.

The health systems of the early 21st Century are much more complex than those of the immediate post-colonial and post-revolutionary period of the third quarter of the 20th Century. At that time, a similar mobilisation of support for international health focused on creating the building blocks of a modern health sector. The consensus strategies for health-system development, as outlined in the Alma Ata Declaration (WHO 1978), were strongly influenced by the predominant belief that the state could, and should, lead the creation of a modern economy. This belief drew on the successful rebuilding of Western Europe with support from the Marshall Plan, the rapid post-revolutionary reconstruction of a number of command economies, and the success of populist regimes in spreading the benefits of development. The Alma Ata Declaration framed the challenge of achieving rapid expansion of health services in terms of the need to overcome severe shortages of physical infrastructure, equipment, trained personnel and drugs.

More than three decades later, the relative roles of states and markets are understood differently and health sector realities have changed (Bloom and Standing 2008; WHO 2008b). The legacy of previous investments in building facilities, training health workers and expanding government health services varies between countries. Some have created a well-established government health service. In others a variety of organisations provide services of mixed quality. Many countries have experienced a rapid spread of markets for health-related goods and services and a much slower development of institutions to influence their performance (Bloom *et al*. 2009). In some cases the boundaries between public and private health systems have become so porous that it is difficult to disentangle them. The rapid growth of the media and content-producing organisations, including advertising agencies, has meant that people are bombarded with health-related messages aimed at informing and influencing them. This history of the construction and decay of a government-led health system and the subsequent emergence of a wide variety of responses to unmet demands for health care has created complex systems in which the influences on the performance of actors and the likely outcome of an intervention are poorly understood (Bloom *et al*. 2008).

In the face of this complexity, different actors and institutions, whether policy makers, providers of goods and/or services, citizens groups or individual users, understand and frame the system and value what it is delivering from their own particular angle perspectives. These different framings of what constitutes a health system and the purposes it serves can, in turn, become part of narratives about how and why it should change. The following section focuses particularly on narratives of scaling up.

3. Scaling up and managing organisational change

Over the past decade debates about how to improve health outcomes in resource-challenged settings have increasingly referred to the notion of 'scaling up' of health resources, health interventions and good practice. The phrase appears again and again in progress reports and strategy statements of global health organisations (Global Fund 2009; World Bank 2005; WHO 2001; WHO 2002). A recent review of journal articles reported a rise in the number with 'scaling up' in their title from two before January 2001 to eighty-nine afterwards (Mangham and Hanson 2010). The term has achieved commonsense appeal conveying the simple, apparently neutral and compelling message that there is a need to do more, do it better, and do it quickly.

This narrative around the concept of scaling up has emerged as the dominant understanding of pathways for transforming the health sector in developing countries amongst major actors in the global health system. A number of frameworks and practical guidance tools for scaling up have been published in recent years (Cooley and Kohl 2006; WHO/Expandnet 2009a and 2009b) and there is a growing literature on the constraints and opportunities associated with scaling up (Arbor 2009; Constantinides and Barratt 2006; Mangham and Hanson 2010). However, the ideas and assumptions embodied in the scaling up language are rarely unpicked in the international and NGO policy literature, and it is seldom placed in the context of the multiple ways in which it is possible to imagine, manage, and respond to large-scale rapid change.

Definitions and Debates

There is no clear consensus on the operational meaning of the phrase 'scaling up' in the health sector (Cooley and Kohl 2006, DeJong 2001, IHAA 2001, Mangham and Hanson 2010, Subramanian *et al*. 2010) and definitions variously emphasise widening geographical coverage of interventions, institutionalizing certain practices and approaches, increasing capacity, mobilising and empowering, and occasionally adapting programmes to new areas and changing needs.[2] Many discussions settle on a broad definition which simply indicates 'doing something in a big way to improve some aspect of a population's health', (WHO 2008c: 1).

Subramanian *et al*. (2010) have usefully divided the use of scaling up into two broad categories. The first refers to the agendas of large global entities, who seek

[2] The language of 'scaling up' has emerged most strongly in the literature on HIV/AIDS and the efforts to increase coverage of antiretroviral therapy (Binswanger 2000; Chimzizi *et al*. 2005; Harries *et al*. 2006). The HIV/AIDS epidemic has heightened calls for urgent change and brought into sharp focus the gap between the availability of medical technologies and the reality of poor service delivery and limited access.

to ‘go to scale’ with top-down technical activities in pursuit of predefined global development goals including the Millennium Development Goals (MDGs). The second category is the growing body of work focused on the specific process of scaling-up or rolling out demonstrably successful small-scale pilot interventions and transforming them into large programmes (Cooley and Kohl 2006; Simmons *et al*. 2007; Uvin 2000). This work understands scaling up as ‘expanding impact’ rather than as ‘becoming large’ (Uvin 2000: 1409). In addition, the term scaling up also appears in literature concerned with increasing mobilisation, empowerment, and collective action at grass roots level (Binswanger and Atyar 2003). Recent papers by Deak (2008) and Chambers (2009), focusing on community-led total sanitation, reflect on the challenges in taking an intervention that relies heavily on local initiative to scale.

Global narratives of scaling up: doing more in a big way

In mainstream global health-policy reports ‘scaling up’ tends to be used broadly to indicate the need to increase the coverage of health interventions or increase the resources required to expand coverage (Mangham and Hanson 2010; Subramanian *et al*. 2010). Money is seen as the key constraint and there are ongoing calls for additional investment by international donors to support the replication of externally validated, standardized interventions.

Scaling up is in this way predominantly conceived as a technical exercise following a linear trajectory from innovation to standardized intervention design, implementation plan, and implementation. The process is planned and managed by technical experts, often consultants from outside the context where the intervention is being introduced. A good scale-up plan both ensures that the conditions are ‘ripe’ for scaling up (Binswanger and Atyar 2003), and that the innovation is standardized and simplified as much as possible for easy introduction (WHO 2008c).

This technocratic scale-up narrative and its focus on financial resources and the creation of global agencies to channel these resources has led to a number of actions and events. There have been substantial increases in the flow of resources. New organisations have been created and a lot of effort has been invested in finding new ways to manage donor flows. It has also stimulated the creation of coalitions between governments, private organisations, and civil society organisations. It has thus supported the emergence of important pathways for health-system change.

The technical scaling up pathway has potential for introducing large health programmes and there are examples of the successful implementation of standardized programmes on a large scale, such as the immunisation programmes support by GAVI. Critics of blueprint approaches, however, have pointed out that scale-up plans frequently fail in the face of complexities and uncertainties on

the ground (Constantides and Barrett 2006; Peters *et al*. 2009; Subramanian *et al*. 2010). The technocratic story minimizes the changes entailed in introducing and implementing an innovation in the health sector, editing out political, social, and cultural realities and rivalries, or constructing them as hurdles which can be overcome with good planning. The organisational and institutional changes necessary for implementing a new technology are sometimes neglected as are questions about direction of change and debate about the choice of technology – what other technologies might have been promoted and what alternatives might have been obscured.

The scaling-up endeavour is also often constructed as a 'no losers' approach, in which the worst-case scenario is that improvement does not happen. Little attention is paid to potential unintended consequences. One example is the contribution that programmes of training community health workers and publicising modern drugs made to the eventual emergence of unorganised markets for health-related services. These debates echo the more general comment made by Leach *et al*. (2010: 6):

> On the one hand, there is now a wide recognition of growing complexity and dynamism – evident across high science, popular media and the experiences of daily life. On the other hand, there appears to be an ever-more urgent search for big, technically-driven managerial solutions – whether in the form of 'magic bullet' seeds and drugs, a continent-wide roll-out of high-impact solutions, or top-down emergency-type responses aimed at shoring up stability and providing security.

The international health partnership and public sector reform

The international health partnership (IHP) is a recent development in the creation of institutional arrangements for accelerating progress towards universal access to health services. It is a partnership between several low-income countries and international agencies supporting health system development. Its main instrument is the country compact between the government and the agencies, which defines a health system development strategy. Each country within the IHP is expected to establish a Scaling Up Reference Group (SURG) on which the WHO, World Bank, Gates Foundation, GAVI Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria, UNAIDS, the UN Population fund, and UNICEF are represented. Each SURG is expected to meet monthly to coordinate the implementation of the country compact. Bilateral aid agencies are invited to contribute funds towards the implementation of the compact. The guidelines refer to civil society engagement, but the form this engagement takes is not clearly defined.

IHP is intended to be a mechanism for improving coordination between international agencies supporting the health sector (Lane and Glassman 2007). The technical leaders of the SURG are identified as the WHO and the World

Bank and the lead agencies for the government are the Ministries of Health and Finance (the government contact points for these international organisations). There are many good reasons for improving coordination between the agencies managing international flows of resources earmarked for health and improving understandings between these agencies and the government. However, the IHP translates this need into a particular scaling up narrative, in which the national government is expected to lead in the creation of a publicly funded and managed health system. In many countries this would involve very substantial changes to the performance of the government health system. The guidelines for the IHP do not present the management of this change process as a major challenge.

The experience of many government health services of a rapid expansion during the post-colonial period followed by prolonged financial constraints and gradual deterioration is part of a more general experience of government administrative systems. In preparing this paper, the authors reviewed recent publications on strategies for improving the performance of the public sector in low-income countries. A search by the authors for literature referring to 'public sector reform and developing countries' did not identify any significant publications presenting good evidence on strategies for improving public sector performance during the past five years. The present emphasis of public sector strengthening programmes appears to be on the creation of islands of good performance in key areas, such as the collection of taxes and, in the health sector, single-disease programmes. There is little evidence on strategies for spreading good practices from these islands to the rest of the public sector. Recent initiatives to strengthen government health systems are attempts to achieve this spread of good practices in the health sector. This is a major endeavour for which there are no off-the-shelf approaches.

Another focus of publications has been on the need to make government services more accountable to the population (World Bank 2004). Here again, there are examples where improved accountability provided incentives for better performance of government health services, but there are no blueprint approaches that could be applied in many different contexts.

The efforts by IHP partner countries to (re-)establish effective publicly financed and managed health systems cannot draw on a body of systematic evidence on the implementation of public-sector reforms. They are an ambitious effort to change the organisation and financing of government health services. This leads to questions about who should be involved in developing the country compact and how strategies for change should be formulated. It also underlines the importance of systematic assessments of what works and why and a learning approach to the management of change (Peters *et al*. 2009).

Scaling up from Pilots to Programmes

A number of scholars and practitioners understand scaling-up more specifically as the process of transforming a pilot intervention which has been successful on a small scale into a regional or national level policy or programme (Binswanger and Atyar 2003; Cooley and Kohl 2006; Simmons *et al*. 2007; WHO/ExpandNet 2009a and 2009b,). This work has arisen out of 'growing frustration within organizations whose small-scale research, pilot or demonstration projects have failed to have an impact on policy and programming over the years, often despite their successful outcomes' (Myers 1984:2; see also DeJong 2001; IHAA 2001), and has been substantially developed in recent years in response to the criticisms of blue-print approaches and the failures observed at implementation level. In the World Bank literature on community-driven development, the problem has been framed as the failure to expand 'islands of success' benefitting a few villages or urban neighbourhoods. Binswanger and Atyar (2003) identify five problematic areas which may hamper efforts to scale up: cost, institutional setting, differences in values and poor organisation between stakeholders, lack of adaptation to local context, and poor logistics.

Because of the focus on process, case studies and frameworks emerging from this body of work emphasise the importance of context, and argue that social and political considerations are as important as financial ones. A number of important themes emerge:

Institutions and service delivery are key

New health technologies are often proposed as the answer to problems when, in fact, it is a malaise of the service system that deprives families of access to technologies. (Phillips *et al*. 2007:130).

Guidance from the international network ExpandNet (www.expandnet.net) defines scaling up as 'deliberate efforts to increase the impact of health service innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and programme development on a lasting basis' (WHO/Expandnet 2009a). Significantly, 'innovation' is defined as a set or package of interventions that includes not only new technologies or service components but also 'the managerial processes necessary for successful implementation' (Simmons *et al*. 2007: 7). Step one of Cooley and Kohl's (2006) guide to scaling up also raises questions about organisational preparedness and capacity for scaling up.

Degree of change in institutional and organisational structures is a crucial consideration

The ExpandNet Group asserts that technical innovation almost always entails or requires some kind of change in institutional arrangements. The 'degree' of this change is posited as an important variable in scaling up. 'Degree of change' refers to both changing how programmes are implemented and also 'changing the attitudes and practices of individual providers.'(Simmons *et al*. 2007:49). Changing the culture and values of the institutions expected to implement an innovation is particularly challenging.

The extent and kind of change implied by introducing an intervention on a large scale influences the attitudes and support at every decision-making level. Kaufman *et al*. (2007) describe the successful testing and subsequent expansion of measures to improve quality of care in the Chinese family-planning programme. This initiative emphasised the value of informed choice and client-provider relationships and marked an important shift in how service users were treated. However, the overarching aims of the innovations remained within the framework and priorities of the government and in alignment with national policies, goals, and fertility control targets. The changes brought about by the Quality of Care Project in China were therefore supported from the top as well as demanded from the bottom.

Scaling-up is a political as well as a technical process

Institutional and health system changes (involving shifts in power structures and in resource allocation) necessarily entail political processes. Key political figures at all levels of the system can significantly influence the course of scaling up: Diaz *et al*. (2007) note that rivalries between municipal officials in Brazil hampered the roll-out of reproductive health training; Constantides and Barratt (2006) describe how resistance from one senior official blocked the introduction of IT management systems in primary health care centres in Crete; reproductive health reforms in China were pushed forward by representatives of the Ministry of Health, who attended the International Conference on Population and Development in Cairo in 1994 and were impressed by frameworks presented there.

The structure and culture of the bureaucratic and political institutions in a country shape opportunities for and trajectories of scaling-up. In more decentralized systems, for example, it tends to take the form of horizontal replication and expansion, with less opportunity for vertical institutionalization (Diaz *et al*. 2007). Phillips *et al*. (2007) compare scaling up of community-based health programmes in Ghana and Bangladesh. Both countries used a demonstration pilot study as the backbone of their programme development and research and both had to prove the validity of their pilot study by adapting and replicating it in a more challenging, resource-constrained setting. However the contrasting societal and

institutional settings of the two countries meant divergent scaling-up strategies were pursued. Strategies for decentralization in Ghana have a prominent role in scaling up, whereas in Bangladesh, scaling up has been a relatively centralized function of a national programme. This is for a number of reasons: institutionally, well-established local leadership structures in Ghana led to organizational change being driven by grassroots partnerships between local leaders, politicians, and health professionals. In Bangladesh, looser local structures of authority and more centralized systems meant change came from the commitment of a formalized, top-down bureaucratic process. The ethnic homogeneity in Bangladesh allows a degree of centralization and standardization of scaling-up policy that would not be possible in the heterogeneous Ghanaian societal context. Organizing collective action and communication through kindred groups is facilitated by Ghanaian social institutions, provided that actual organizing activities are adapted to local tradition.

Adapting to ever-changing local realities

When moving from a small-scale, localized intervention to a large-scale programme there is always a tension between preserving the benefits, goals, and standards (e.g. of equity) of the intervention and ensuring that it is relevant and culturally appropriate to users by adapting it to local realities. One important strategy for addressing this challenge emerging from ExpandNet discussions and case studies is holding on to overall aims and standards, while encouraging local adaptation and ownership of implementation.

In Ghana and Bangladesh, pilot studies of community-based interventions which had successfully improved reproductive health on one site were adapted and retested in other more challenging and resource-constrained settings before being accepted as a feasible model for large-scale implementation. The strategy of replicating and validating a pilot in a resource-constrained setting places adjustment of implementation to context at the centre of the scaling up process. In reference to the Ghana experience, Nyonator *et al*. note that the scaling up plan was ‘less a prescription for replication than a generic process for adaptive development of appropriate health care that would work in other areas of Ghana.’(2007: 107).

The need for flexibility and adaptive strategies and learning approaches

Tailoring implementation plans to local contexts at the outset is not enough. Several ExpandNet case studies comment on the challenges of responding to ongoing, unpredictable, and uncontrollable changes in personnel, policy priorities, and the environment. Diaz *et al*. note, with reference to efforts to scale up family-planning service delivery in Brazil, that the public health system ‘always holds surprises, especially since it continues to evolve and is highly variable among

municipalities.' (2007:139). To adequately respond to ongoing or unexpected changes in the implementation environment, the ExpandNet group draws on the notion of 'learning organisations' and advises ongoing detailed research that keeps an ear to the ground. Phillips *et al*. (2007) recommend 'diffusion from trial sites' or 'demonstration model' approaches, in which peer exchanges and shared learning on the pilot demonstration sites are ongoing, as sustainable learning approaches. Constant knowledge-sharing and feedback in order to continually adapt and improve programmes is recommended, with manuals and procedures operating as 'living documents that were constantly adapted in the light of new experiences and contexts', (Binswanger and Atyar 2003:8).

Financing mechanisms and arrangements shape the scaling up trajectory

When funds are not specifically earmarked, and come from a more general sector-wide fund it can be difficult for specific interventions to access resources. In Ghana, for example, incremental start-up costs severely constrained efforts to scale up Community Reproductive Health services. This is in contrast to Bangladesh, where a World Bank Loan funded the training of the 10,000 additional workers needed to implement the community-based reproductive health programme on a large scale. In general it is asserted that additional funds are needed to fund the incremental costs of initial scale-up. At the same time ExpandNet case studies in China and Africa demonstrate that it is possible to design interventions that can be sustained on existing local resources – though when funds for scale-up have to be leveraged locally, it can slow the process. Co-financing by communities is thought to promote local ownership (Binswanger and Atyar 2003; Nyonator *et al*. 2007).

Binswanger and Atyar argue that '[c]ommunities and local governments can be truly empowered only by giving them an assured flow of funds from the central government, as well as the authority to levy local taxes and user charges. Only then can they participate fully in development bargaining. Untied funds enable communities and local governments to choose their own priorities, and create skills through learning by doing', (2003: 10). The short-term time frames favoured by donors undermine this process.

Participation of stakeholders is crucial to encourage ownership of initiatives

Participation of stakeholders (including community members) and encouraging local ownership of programmes is regarded as an essential component of the scaling up process, which should be incorporated from the outset (Simmons *et al*. 2007). Binswanger and Atyar note that real participation 'means involving citizens at every stage and level' (2003:10); increasing real participation in order to shift power from top to bottom is the core aim of their engagement with scaling

up community driven development. Attaining meaningful participation and the benefits of community empowerment is not easy: stakeholder groups approach the scaling-up task from a variety of perspectives, needs, and interests, and interact with each other in contexts of unequal power relationships.

Alternative narratives of scaling up

Narratives of scaling up reflect the different challenges that actors face and the objectives they prioritise. The global narrative has been important in building common understandings between potential providers of additional funding for health services in low and middle income countries and the agencies tasked with ensuring that substantial increases in funding are used appropriately. These agencies have constructed large organisations at global level and supported the development and spread of effective health management arrangements. However, in many cases there is a need for more nuanced approaches to the creation of health systems that can be sustained in complex and dynamic contexts. The pilot-to-programme narrative has supported the management of complex changes in which issues of sequencing, organisational learning, and the creation of appropriate institutions are important. Both narratives reflect aspects of reality and both inform effective strategies for change. The challenge for actors engaged in health-system change is to incorporate learning from all actors and build relationships that both support the creation and rapid spread of effective management arrangements and encourage local experiments and make possible adaptation to local contexts. This will involve a more reflexive approach to organisational development and learning.

4. Health system change as the diffusion of innovation

This section shifts attention from strategies for spreading new ways of organising services to the emergence and spread of innovations themselves. It draws on a body of literature on the emergence and diffusion of innovations (Conway and Waage 2010; Frost and Reich 2008; WHO 2009b). Many initiatives to increase access to health services can be understood as organisational innovations and efforts to take these initiatives to scale can be seen as the diffusion of these innovations (Gardner *et al*. 2007). Atun *et al*. (2010), for example, apply this perspective to an analysis of the challenge of integrating disease-specific programmes into health systems.

Health as an innovation system

It is possible to draw on analyses of innovation systems in industrial production to pose questions about where, and within which types of organisation important innovations arise (Bell 2009). In applying this framework to health, it is important to recognise the dual roles of the health sector as provider of expert services and producer and supplier of specialised health-related products.

Much analysis of health-related innovations and their global diffusion is based on a stylised vision in which large public and private organisations in the advanced market economies produce new knowledge and technologies, which are gradually taken up by government-owned and managed health services in low and middle-income countries. The literature on innovation, on the other hand, focuses on a mix of large and small organisations, which largely relate through markets, and asks about the factors that influence their emergence, adaptation, and spread. These different stylised visions may explain why the innovation-systems approach has had little influence on the analysis of health-related innovations. This is changing. It is now widely acknowledged that most health systems include a variety of public and private organisations in complex relationships (WHO 2009a). Health-related markets have become increasingly important in many low and middle-income countries (Mackintosh and Koivusalo 2005) and a large proportion of health expenditure and of contacts by poor people with the health system involves providers of goods and services working outside a regulatory framework (Bloom *et al*. 2008). The boundary between public and private health systems has become blurred in many countries and it is becoming increasingly difficult to view health as totally different from other sectors. This has led to efforts to apply to health approaches that other sectors in low and middle-income countries use (Bloom *et al*. 2009; Elliot *et al*. 2008).

As with narratives on scaling up, one can contrast a linear view of health-related innovations, in which basic science informs translational research, which ultimately informs implementation, with an innovation-systems perspective of

multi-way interactions and feedbacks at every stage (Atun and Sheridan 2007).

Where do innovations arise?

Bell (2009) contrasts two narratives of the source of innovations and how they can be encouraged. One focuses on organisations that specialise in basic science or technology-related research and development (R&D) as the major source of innovations. This leads to a strategy that emphasises support for these organisations and for the spread of new technologies to producers in different countries. Until recently specialised R&D organisations were largely located in the advanced market economies. This is changing, and rapid economic growth has been associated with the development of large government research centres and of corporations with an increasing capacity for technological innovation in China, India, and other large countries (Mashelkar 2005; Leadbeater and Wilsdon 2007).

The other narrative gives more emphasis to the role of small improvements and adaptations to new contexts in the spread of a technology's use and the development of new applications. This leads to a greater emphasis on building the capacity of organisations to make these kinds of modifications. It also encourages analysts to look more widely for the source of innovation. Whereas the first understanding emphasises the training of scientists and professional engineers to work in specialised research organisations, the second focuses more on how skilled workers and artisans spread and adapt new processes. Leach and Scoones (2006) draw attention to the way poor people, themselves, struggle to understand and find solutions to problems. They point out that there are few arrangements to identify, test, and diffuse these innovations. Bell (2009) argues that an effective strategy for encouraging the rapid development and diffusion of technologies that benefit the poor needs to take into account all participants in an innovation system.

Recent reviews of innovation in the health sectors of advanced market economies emphasise the many factors that influence their spread (Damschroder *et al*. 2009; Greenhalgh *et al*. 2004). These include the type of innovation, the internal characteristics of the service delivery organisations, and the broader context within which these organisations operate. As in other sectors, the diffusion of new ways of doing things relies to a great extent on the degree to which new approaches can be adapted to local circumstances, the incentives for organisations to do things differently and their capacity to implement changes.

The spread of health-related markets in many low and middle-income countries has been associated with a lot of innovation. Some innovations have been beneficial by providing access to good quality services at a lower price, while many others have been associated with the overuse of pharmaceuticals and diagnostic tests, rises in the availability of counterfeit drugs, and the widespread use of partial doses of anti-microbial and anti-viral medications. Recent publications

by Wagstaff *et al*. (2009), Bhuiya (2009), and Oladepo *et al*. (2008) document these undesirable innovations in China, Bangladesh, and Nigeria, respectively, and advocate changes in organisations and institutions to alter incentives and discourage these bad practices.

The wide gap between the demand for and supply of safe and reliable health care at an affordable price combined with the rapid growth in income of large numbers of relatively poor people is creating many opportunities for public and private innovators to respond to unmet needs and there is growing pressure on government and other social organisations to do something about damaging health service practices. There are a number of examples of organisational innovations that improve the quality and/or efficiency of services (Bhattacharya *et al*. 2008; Champion *et al*. 2009). These include the creation of new management processes within hospitals or primary care providers and the introduction of arrangements such as branding, franchising, and accreditation to influence the performance of large numbers of dispersed providers of services or sellers of pharmaceuticals. One can find this kind of innovation led by government, not-for-profit organisations, and the private sector. In addition, governments and other civil-society actors are developing innovative regulatory approaches to alter the incentives and norms of behaviour that influence providers of health-related goods and services. These may involve new kinds of partnerships (Mackintosh and Tibandebage 2002; Peters and Muraleedharan 2008).

Who produces organisational innovations?

Large public and private actors are important sources of health system innovation. Much of the focus in the health sector has been on the factors that encourage or impede the spread of innovations in public-sector institutions. The discussion of scaling up in section 3 of this paper addresses much of this literature. Many of the conclusions about the management of organisational change apply equally to large NGOs or large private corporations. These innovations are increasingly taking place outside the advanced market economies. Champion *et al*. (2009) point to examples of retail pharmacy chains in several countries of Latin America, private hospital chains in south and south-east Asia, and the growing role of large Indian and Chinese pharmaceutical companies. Some of these organisations are already emerging to become regional or even global players. There has not been as much analysis of entrepreneurs in the rapidly growing health markets in low and middle-income countries. The development of organisational arrangements to improve the performance of small-scale providers of health services and sellers of pharmaceuticals is at an early stage.

Social entrepreneurship plays an important role in the health sector. Nicholls (2006) uses the term to denote organisations that borrow a mix of business, charity and social movement models to reconfigure solutions to community problems and deliver sustainable new social value. Both Nicholls (2006) and Austin *et al*. (2006) suggest that social entrepreneurs work in the public, private, and social

sectors and are often involved in organisational innovations across these sectors. This makes them particularly relevant in pluralistic health systems, where the boundaries between public and private roles and functions are often blurred.

Some social entrepreneurs focus on establishing new niches, which ultimately could be filled by market-oriented organizations; others focus on raising money to finance services that reach the poor. One example of the former is Scojo, which designs and produces low-cost eye-glasses for people with age-related vision problems and develops systems to distribute them. It has established its own distribution network in India, but elsewhere it has linked to organisations that already have a local distribution network. In Bangladesh, for example, it is working with BRAC, a very large development organisation with a major health programme. BRAC has trained many village health volunteers, who, amongst other things, have played an important role in the implementation of directly observable therapy for tuberculosis. A recent review of BRAC's experience with female community health volunteers has emphasized the importance of BRAC's good reputation in motivating them, but it identified the need to ensure they can also earn money and maintain a livelihood in a context where they have other opportunities for making a living (Standing and Chowdhury 2008). The sale of eye-glasses can provide this kind of opportunity.

The boundary between social entrepreneurship and responses to commercial opportunities can shift. For example, banking through mobile telephones, which began as an act of social entrepreneurship, is now a growing business. The same applies to micro-credit. A recent assessment of micro-credit confirms its success in reaching people previously excluded from the organised economy (Greeley 2006). It has substantially improved the performance of credit markets by using innovative approaches for identifying good credit risks, appropriate to the institutional context of many low-income countries. Successful schemes are linking to commercial financial organisations. It is possible that a similar process is emerging in the health sector, where social entrepreneurs are investing in new approaches for responding to major unmet demands for services. If they are successful, they may pave the way for commercial organisations to move into the newly created niches in a sector that accounts for a significant share of the global economy and for government and new kinds of social organisations to respond to the needs of the very poor.

Chambers (2009) refers to another kind of social innovation in his discussion of community-led total sanitation. This involves the construction of a social compact between residents of a locality, which encourages all households to build toilets and stop open defecation. He argues that committed and imaginative leaders have played a key role in the rapid spread of this innovation. They, in turn, have been supported by a loose network of NGOs and other organisations with an interest in improving environmental sanitation. Christensen *et al*. (2006) refer to the creation of these new social models as catalytic innovations for social change.

Discontinuity, disruption and transition in health systems

There is a growing trend of thought that anticipates and seeks to understand large discontinuities or transitions in how societies make the benefits of technology available to their populations. The word 'transition' has come into increasing use to denote very large changes such as from a command to a market economy and between socio-technical regimes, such as alternative ways of producing and using energy (Woo *et al*. 1997; Geels 2004; Smith and Stirling 2008). The increasing use of this word reflects an expectation of major changes in technology, the environment, and the balance of global economic power. A number of commentators have suggested, for example, that the current economic crisis may mark a shift of economic and political influence towards Asia. This sense of instability is reflected in the expectations that the value chains that have evolved over the past few decades to organise the production and distribution of goods and services will become less stable (Gereffi 1994; Humphrey and Schmitz 2001). This stability has been due to a combination of the power of a few leading firms in each sector and a wide variety of national and global regulatory arrangements. The emergence of large new firms and the involvement of the governments of China, India, and other large countries in global economic negotiations are challenging this stability.

Disruptive technologies

One important strand of thought on the source of discontinuities in the markets for goods and services is the analysis of so-called 'disruptive technologies' (Christensen and Overdorf 2000). This refers to the emergence of new ways of doing business that reduce the cost of an existing good or service, associated with developments in technologies and/or with new potential consumers. Christensen and Overdorf (2000) argue that large firms that dominate a market tend to be structured to provide a well established good or service at a very large scale. These firms are good at responding to evolutionary changes with 'sustaining innovation'. However, the management arrangements that make this possible tend to discourage experiments with 'disruptive innovations' that will require major changes. A disruptive technology may be initially seen as an erosion of quality. It eventually creates an entirely new market and the disruptive organisation may create a new business model that either forces the sector leaders to adapt or displaces them, altogether.

The spread of the informal economy

The rapid rise in the proportion of economic transactions taking place outside the formal economy in many countries is a sign of the instability of existing institutional arrangements. It reflects a relative fall in the influence of formal governance mechanisms over economic life and the increased importance of informal networks. In many cases this reduces the constraints to the emergence

of new types of organisation (beneficial and harmful). The reasons for the spread of informal arrangements differ between contexts.

Light (2004) draws a parallel between the transition from a command to a market economy in Eastern Europe and the opportunities that the spread of the internet provide for the emergence of 'subversive' companies that develop new ways of doing business. In the former case, the decay of the institutions of the command economy and the time it took to design and enforce new regulations provided many opportunities for people to move quickly into new niches, relying on informal networks, rather than the state, for support and protection. Light (2004) suggests that the spread of the internet and of potential ways to act across national borders and operate on the boundaries of legality provides similar opportunities to internet entrepreneurs. He cites Napster, which seriously challenged the business model of companies that distribute music. In both cases, new companies have grown very rapidly by operating outside the constraints of a highly regulated environment.

The spread of informal economic relationships can also reflect a weakening of institutions due to prolonged war and civil disorder (Duffield 2001) or chronic economic crisis and the failure of state institutions to provide a stable framework for economic activities and development (Chabal 2009). This has been the case in a number of countries in Africa, for example, where a very large proportion of economic activity now takes place outside a legal framework. The major response has been the emergence of localised, small-scale adaptations to cope with a difficult context. However, larger-scale organisations have also emerged, including initiatives to improve access to safe and effective health services, largely through government, NGOs, and church-owned hospitals, and, increasingly, private health-service providers. There is no clear agreement on the best way to create stable institutional arrangements that can more effectively provide services to the poor. However, most international experience suggests that attempts simply to import organisational models from outside are often unsuccessful. The successful approaches tend to combine simple and effective management systems that provide clear incentives to the providers of services with close relationships with aspects of the informal economy that build trust and accountability (Mackintosh and Tibandebage 2002; Pritchett and Woolcock 2004).

Rapid economic growth in the large countries of Asia and the very rapid rise in the number of relatively poor people with some disposable income is an important source of instability in value chains, particularly when coupled with a very rapid movement of people to the cities. Kaplinsky and Farooki (2010) document the dramatic increase in the number of people in this category in China and argue that, in comparison to the residents of the advanced market economies, they prioritize cost over quality. They suggest that this is creating a big incentive to develop goods and services that meet basic needs at an affordable price. In both China and India, the regulatory reach of the state is limited and many relatively poor people obtain a large proportion of their goods and services outside a highly regulated market. Both countries have experienced scandals concerning

dangerous food, major environmental hazards, ineffective pharmaceuticals, and so forth. This highlights the potential size of the niche for providers of trustworthy, low-cost goods and services and the major challenges governments face in creating institutional arrangements to ensure these services are safe and effective. This is likely to involve new kinds of partnership between public and private actors.

Prahalad (2005) argues that the many consumers joining the global economy represent major new business opportunities and suggests that large private corporations are responding to these growing markets. He suggests that this will result in new ways of producing low-cost goods and providing low-cost services aimed at people near the bottom of the pyramid. Clark *et al*. (2009) describe 'under-the-radar' innovations that are already emerging in low and middle-income countries. They suggest that companies based in these countries are most likely to develop innovative ways to meet the rapidly increasing demands for these goods and services. These innovations could eventually disrupt existing value chains by offering comparable goods and services at a lower price. A recent paper by Chakravorti (2010) argues that Indian companies, or Indian subsidiaries of transnational corporations, will become important sources of disruptive innovations to meet the demands of a new and growing market. He suggests that once a model has been established in India, large corporations will draw on it to modify their normal practices. Thus, India could become an important source of innovation and renewal for existing market leaders. The same analysis could apply to China and other large economies. China and India have strong states, which are playing increasingly important roles in global economic negotiations. These states have close links with national firms that are seeking global markets. They will eventually have the capacity to influence the international regulatory standards, which are an important element in the governance of global value chains.

Future health systems

Bloom and Standing (2008) suggest that we are approaching a period of major change in the organisation of health systems. They argue that health systems in the advanced market economies were largely established during the first decades of the 20th Century with the creation of self-regulating professions and they were consolidated in subsequent decades with the establishment of a highly regulated oligopoly in the pharmaceutical industry and the heavy involvement of the state in financing health services since the end of the second world war. They argue that the development of the health sector is highly path-dependent, reflecting the importance that societies place on avoiding mistakes with potentially serious consequences for health and the highly political nature of health policy debates (Pierson 2003). This conservatism has been reinforced by the political influence of strong health-system stakeholders. As a result, health has changed much less than the organisation of comparable sectors.

The rapid development of information and communications technologies is an

important potential source of disruption to health systems. Lucas (2009) highlights three areas of impact on the health sector: (i) the use of mobile telephones and other communications media to provide access to expert advice and influencing messages for health service providers and the general public; (ii) the use of information technology to strengthen the management of health services through its use in basic accounting and billing and as a means of monitoring the quality of service in terms of guidelines for diagnosis and treatment; and (iii) the development of sources of expert medical knowledge, which individuals can access directly. Each of these developments creates a capacity to disrupt existing ways of organising health systems. Other technologies with the potential to change the organisation of health services include low-cost diagnostics and the increasing availability of low-cost generic drugs outside the intellectual property regime. Taken together they open up possibilities for new ways of organising the provision of inexpensive, safe, and effective services. Another factor contributing to this possibility is the existence of a large body of knowledge that has made it possible to create expert systems which could provide guidance on the treatment of a large number of health problems.

Several recent papers explore the potential role of disruptive technologies in the health sector of the advanced market economies (Hwang 2009; Hwang and Christensen 2008; Pauly 2008; Smith 2007). They argue that it is now possible to employ a rules-based approach towards diagnosing and managing illnesses, which no longer relies on the expensive expert knowledge and judgment of physicians for a large proportion of cases. As a result, less skilled, less expensive personnel can take over tasks previously done by physicians, and certain conditions can be swiftly and cheaply dealt with in walk-in clinics (Halford *et al*. 2010). Christensen, who is a diabetic, argues that people can increasingly manage their own chronic illness, with easy access to inexpensive diagnostic tests (Smith 2007). The intern*et al*so opens up alternative possibilities for people to gain access to 'expert' advice at a growing number of websites. Some online pharmacies, which began by offering cut-price pharmaceuticals, now also provide advice (Arrunada 2003). There are a number of internet sites at which people with a particular health problem can share experiences and gain access to expert advice. It is possible to imagine a wide variety of alternatives to the present arrangements for organising access to expert knowledge and inexpensive drugs and other specialised goods and reducing the possibilities of opportunistic behaviour arising from asymmetric possession of expertise (Bloom *et al*. 2008).

Despite the availability of new and less expensive ways to provide access to effective treatment, Lee and Lansky (2008) warn that resistance by stakeholders and a myriad of complex regulations and payment mechanisms may preserve existing arrangements for a very long time in the United States. This supports the suggestion that organisational innovations are more likely to occur where there is less resistance to change (Bloom and Standing 2008). A recent study of innovations in health delivery undertaken by McKinsey for the World Economic Forum found that some of the most important innovations were in developing

markets (Ehrbeck *et al*. 2010). The authors suggested that this reflected both the urgency of demand for improvements and the lack of institutional constraints. A recent paper by Biswas *et al*. (2009) about India, uses the notion of disruptive innovation to explore how the spread of mobile telephones and increasing access to the internet is transforming how people get access to information and creating possibilities for them to manage their own health problems. They are less clear about which kinds of organisations, in terms of ownership and governance, are likely to move into this niche.

The rapid spread of unorganised markets is a sign of instability in health-related value chains. Although it has substantially increased the availability of pharmaceuticals in many parts of the world, it has created problems: access is only for those who can afford to pay, the quality of pharmaceuticals is variable, and the advice on how to use these products is often poor. The sources of advice include unqualified practitioners, commercial advertising, advocacy material, as well as formal health workers. Much of the use of these products has not provided health benefits and has encouraged the emergence of organisms resistant to anti-microbial and anti-viral products. The recent 'discovery' of the existence of high levels (and growing prevalence) of chronic non-communicable diseases and mental illness in many low and middle-income countries has both uncovered a new unmet need and identified very large potential new markets for a wide variety of products.

The demand for effective treatment of common illnesses is stimulating a variety of organisational innovations, some of which are likely to become important models for organising the health sector. These include new types of service delivery organisation that provide cost-effective treatment (Bhattacharya *et al*. 2008), the spread of retail pharmacy chains to ensure the quality of products and provide advice based on expert systems (Lowe and Montagu 2009) and the use of mobile telephones, the internet, or other knowledge intermediaries to provide expert advice and, perhaps, also supply pharmaceuticals. The decreasing cost of getting access to the internet through mobile telephones and other devices is creating big opportunities for organisations with a variety of motivations to inform and influence large numbers of people (Aker and Mbiti 2010; Cranston and Davies 2009). It is difficult to predict how quickly these new types of organisation might spread, although the rapid take-up of mobile telephone banking is an indicator of the rapidity with which new applications can become established.

There is also evidence of new kinds of organised social response to the negative consequences of unorganised markets based on localities or on a shared health problem. An example of the former is community-led total sanitation which builds village consensus on basic standards for the disposal of human wastes and encourages all households to build and maintain a toilet. Chambers (2009) describes the spread of this movement from village to village motivated largely by a form of village-level civic pride. An example of the latter is MoPoTsyo, a Cambodian NGO that organises people with diabetes for mutual support. It

relies on people with diabetes to play a key role in identifying others with the disease, using a simple dipstick technology, and organising meetings to help people manage their diet and medications and consult a doctor when necessary. These organisations are blazing a trail for quite new ways for people with chronic diseases to manage many of their problems as ‘expert patients’, while seeking support from health service providers.

One can envisage different combinations of the above organisational models, approaches for building and maintaining a reputation for trustworthiness and forms of ownership, which will have different consequences for both the safety and cost-effectiveness of services and the access to effective services by the poor. One undesirable possibility is an arrangement that enables companies with a financial interest to encourage high levels of pharmaceutical use. Alternatively, one can envisage a health sector that provides access to trustworthy medical advice through a variety of knowledge intermediaries and has health facilities known for quality and affordability. Actions by governments and other social organisations will strongly influence the pathways of development. For example, the advanced market economies have created legal barriers to the integration of companies that produce pharmaceuticals, distribute them and provide advice on which products to use. The many possibilities that the spread of information technologies creates for new kinds of knowledge intermediary and new forms of financial relationship between companies involved in the health sector pose regulatory challenges for governments. Their responses to these challenges will strongly influence the direction of organisational innovations in the health sector, the implications for the distribution of benefits, and the degree to which diverse responses to health challenges are possible.

5. Pathways to universal access

This section discusses the implications of the analysis of the different narratives of 'scaling up' and 'diffusing organisational innovations' for strategies to achieve the goal of universal access to safe and effective health services. This goal provides a useful starting point because it reflects a broad consensus on the right of access to health care. This consensus breaks down in the face of questions about (i) the services to which the goal refers; (ii) the agencies responsible for financing the services; and (iii) the complementary actions governments and other agencies need to take with regard to services that government does not finance. The answers to these questions will be strongly influenced by the way decision-makers understand the challenge of increasing access.

The experience of many countries with the creation and management of an effective health system has led to a broad consensus on the kinds of organisation required (Frenk 2010; WHO 2009a). They include social finance of a substantial proportion of health care costs and mechanisms to ensure that health services are safe, effective and affordable. These organisations perform well when embedded in institutional arrangements that build and support trust between actors, since it is difficult to convince people to pay money into a fund against which they might make a claim in the future or believe in the competence and ethical standards of health workers in the absence of trust (Bloom *et al*. 2008; Gilson 2005). An important element of these institutional arrangements is a government that is seen to be responsible to the population and is capable of exercising its powers effectively, in partnership with other actors.

The construction of a shared vision of the future plays an important role in the creation of institutional arrangements for health that have political legitimacy. This vision must arise from local processes, even if it draws on models from abroad. International narratives of taking health-system improvements to scale sometimes conflate a vision of a future global health system with the process of transforming the present situation. Health systems in the advanced market economies have pursued quite different pathways towards high levels of access. Religious or philanthropic organisations played an important role in raising health finance and organising service provision in some countries and private practitioners were very important in others. The relationships between actors changed as the government took increasing responsibility for ensuring high levels of access to services, but the historical legacies have been preserved in the incorporation of general practitioners as independent contractors to the British National Health Service and the continuing role of church-owned hospitals in many countries. It is wise to keep these different pathways in mind in assessing the options that low and middle-income countries have. It is also important to recognise that the choice of one option may preclude other potential pathways with differing implications for the quality and cost of services and the distribution

of benefits between stakeholder groups.

One factor that is contributing to a global vision of the organisation of a future health system is the understanding of the health sector as a stable system, in which a number of actors interact in a predictable manner (Frenk 2010). This reflects the complex institutional arrangements that have evolved over the years in many advanced market economies (Bloom *et al*. 2008). The health systems in these countries involve a wide variety of private and public actors, which operate in a predictable manner. There is a substantial body of knowledge on the performance of health systems, which has made it possible to construct models that predict their response to different interventions. Some scaling up narratives imply that these systems will gradually spread globally. This contradicts the experiences of institution-building in many low-income countries. In addition, there are growing signs that a variety of factors are challenging the stability of health systems in the advanced market economies (see previous section).

There is little systematic knowledge about how societies create complex institutions (Chang 2007; Fukuyama 2005). A recent review by the World Bank found that the detailed design of an intervention in a low-income country had much less influence on the outcome of a health-system development programme than the way it was implemented (Peters *et al*. 2009). The construction and subsequent decay of government-owned and managed health systems, the emergence of organised and unorganised markets for a wide variety of health-related goods and services, and the increasing availability of health-related information through a variety of media has created a complex situation in which the factors that influence the performance of different actors are poorly understood (Bloom and Standing 2008). This makes it particularly challenging to build agreement on roles and responsibilities and the appropriate institutional arrangements to support them.

There is a tension between 'blue-print' narratives of scaling up and organisational innovation and 'bottom-up' approaches that emphasise local contexts and local innovation. The former have the advantage of speed, but they have limitations in terms of responsiveness to local needs and the influence of the institutional context on the performance of an organisation. The latter can lead to an over-emphasis on getting a particular organisation right while neglecting the need to spread learning and support large-scale organisational change. Peters *et al*. (2009) propose an iterative approach for translating local experiences and local learning into improved management systems. This would mean that organisations involved in managing national and international funds, creating large organisational innovations, and accounting for these funds would have to work closely with managers of local organisations to learn what does and does not work well and incorporate this learning into improved management systems.

The locus of innovation is moving away from big organisations in a few advanced market economies. A large proportion of health-care transactions take place in unorganised markets, with deleterious consequences for the people who pay a

lot of money for dangerous and ineffective health care. This is creating a demand for action and the most effective responses are likely to emerge close to where the affected people live (Prahalad 2005; Clark *et al*. 2009). It is impossible to predict the relative roles of new kinds of public health services and new kinds of private (for-profit or not-for-profit) organisations in providing low-cost and effective services. In any case, governments need to play an important role in guiding the development of a rapidly growing health system and ensuring that it performs well. The construction of appropriate institutional arrangements to bring order to unorganised markets is a complex process and it is important to establish mechanisms that support rapid learning by all stakeholders about what works well and what does not.

One factor that has encouraged the spread of health markets and the emergence of complex health systems has been the unwillingness or inability of the state in many low-income countries to establish and enforce rules-based systems that take into account the interests of the population. This poses special challenges to which effective responses are likely to involve partnerships between government, civil-society groups, private companies and so forth to (i) regulate the most dangerous practices, (ii) finance and organise high priority health services, and (iii) ensure that people have access to information and advice to manage their health problems better and become informed consumers and citizens.

The rapid spread of information and communications technologies is creating new opportunities and challenges for health-system development. It is too soon to assess the degree to which it will disrupt current ways of organising health services. However, there are enough indications of its potential impact to merit efforts to monitor the emergence of important innovations and to begin a process of mutual learning about the potential regulatory challenges.

The management of big improvements in the performance of complex health systems is a difficult task. Since it is impossible to predict the outcome of an intervention it is important to ensure rapid learning about what works and what does not and monitor for potentially damaging outcomes (Peters *et al*. 2009). Lagomarsino *et al*. (2008) outline a stewardship role for government in building partnerships to improve the performance and regulate the private sector. We take this further to suggest that the leadership of health-system change also involves support for the co-construction by key stakeholders of institutions that embody new understandings of the roles and responsibilities of different actors and of the norms and behavioural expectations that underpin these understandings (Bloom and Standing 2008; Bloom *et al*. 2009). These institutional arrangements are essential for the effective performance of a sector that relies heavily on trust-based relationships between actors. The way that common understandings are built and conflicts of interest are negotiated will strongly influence the pathways of health-system development.

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